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The Impact of Entrepreneurial Self Efficiency and Enabling Business Environment on Business Performance of Female-led Handicraft Manufacturing SMEs in Sri Lanka.

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ABSTRACT

Recent literature indicates that SMEs in Sri Lanka fall short of exploiting the full potential of current technological means. The study examines the internal and external factors that contribute to the success of women-led small scale handicraft entrepreneurs in Sri Lanka. The field survey carried out among 158 female-led small and medium scale handicraft producers in western province in Sri Lanka. As the study hypothesized, both external factors based dynamic effective index (EFBDEI) and owner's entrepreneurial self-efficiency index (OSEI) have significant positive impact on business performance during the last five years. However, relatively, the leaders' entrepreneurial self-efficiency index has shown greater magnitude than the external factors based dynamic effective index on success or failure of female-led business. Thus, policy makers need to be drawn their attention not only the improvement of infrastructure facilities but also the importance of owners entrepreneurial self-efficiency improvement of small and medium scale female-led business owners in Sri Lanka.

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INTRODUCTION

Micro, small and medium enterprises (MSMEs) is said to be the backbone of the economies in Asian countries. In Sri Lanka, MSMEs play a strategic role in economic development process with significant percentage of the total number of industrial business establishments as in other developing countries (Buddhadasa, 2004). Having understood the positive impact of MSME development and economic growth, successive government in Sri Lanka have taken various steps, since independence, towards the development of this vital sector (Fernando, 2006). According the Department of census and Statistic in 2012, there were a total of 148, 456 registered and informal industrial unit in the country producing various type of product and employing more than 80,000 persons. Further, the individual establishment below 5 employees accounted for 84% of total establishment and 28% of total employment, but accounted only for 7.5% of the total output and 7% of the value added in industrial sector (Department of Census and Statistics, 2012). SMEs are defined in a variety of ways by various countries using different parameters such as number of persons employed, amount of capital invested, amount of turnover or nature of the business etc. In Sri Lanka, different government agencies use different criteria to identify SMEs. Among those criteria number of employees, the size of fixed investment and the nature of the business are very common standards use for define SMEs. The Industrial Development Board (IDB) defines a small industry as an establishment whose capital investment in plant and machinery does not exceed Rs. 4 million (US\$ 33,300) and the total number of regular employees does not exceed 50 persons (Central Bank of Sri Lanka, 2012). The Department of Small Industries (DSI) classifies enterprises with capital investment of less than Rs. 5 Million (US\$ 41,600) and fewer than 50 employees as SMEs (Ponnapuruma, 2000). Sri Lanka Export Development Board (SLEDB) SMEs are defined as those enterprises with a capital investment excluding lands and building of less than Rs. 8 Million (US\$ 66,600) (Hewaliyanage 2001). The World Bank defines enterprise size in Sri Lanka based on the number of employees; those with fewer than 49 employees are small; those with 50-99 employees are medium – sized; and those with more than 100 employees are large. The number of employees as the criterion for size appears reasonable because it distinguishes between enterprises regardless the line of business, and the amount of capital investment must be revised frequently due to inflation (Ponnapuruma 2000).

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2. Literature Review and Conceptualization:

The history of Sri Lanka handicrafts runs back to millenniums and its production, with the exception Jewelry, is essentially a cottage industry: products are turned out making use of natural raw materials by means of time tested age-old techniques. Sri Lanka's ancient social system having its Indo-Aryan roots has been largely instrumental in preserving traditional skills with its characteristic identity; certain arts and crafts were assigned to defined socio-occupational groups. Sri Lanka's wide variety of very attractive handicrafts can be found throughout the island in shops, street stalls and government-run stores. Mainly, pottery, wood carving, metal work, brassware, brass casting, metal cutwork, lacquer work, batik work, handloom textile, mat making, jewelry, lace making and wooden masks. Ivory and tortoise shell handicrafts once sold at large are no longer legal in Sri Lanka.

It is evidence that the small and medium scale handicraft industry has greater potential generate maximum socio-economic benefits to the country with low level of investment. This sector requires relatively less capital per unit and relatively less infrastructure. Thus, promoting this vital sector among rural areas would be supported to enhance livelihood implication of rural low income households. Further, small and medium scale handicraft industry in Sri Lanka enables to generate substantial employment opportunities particularly in the informal sector. This sector is mainly financed by domestic sources, particularly from individual personal saving or informal borrowings, thus the sector contribute to broad-based capital formation throughout the country. The development of SMEs can be an aid to promote balanced regional development and this sector provides high value addition in view of its greater utilization of indigenous machinery equipment and raw materials.

According to the International Labour Organization (ILO) recommendation, to stimulate job creation in small and medium sized enterprises posits that member should encourage support for female entrepreneurship recognizing the growing importance of women in the economy through measured designed specially women who are, or wish to become entrepreneurs (International Labour Office, 2008). A substantial number of women entrepreneurs operate micro and small business in Sri Lankan informal economy. In developing world, women workers make up around 60 percent of non-agricultural employment in the informal economy – including up to 90 percent of street vendors and up to 80 percent of home based workers (International Labour Office, 2008).

Gender discrimination denies women their right and is economically unproductive. Gender-based asset inequality affects resource allocation within the household and labour productivity (Kalegama, 2002). Women entrepreneurship can make a particularly strong contribution to the economic well-being of the family and communities, poverty reduction and women's empowerment, thus contributing to the first and third Millennium Development Goals (MDGs) where women have more control over the resources of the household, the pattern of consumption tend to be more child-focused and oriented to meeting basic needs (Kodithuwakku & Perera, 2003).

3. Problem Statement:

In Sri Lanka, although women contribute to more than half of the economically active population of the country, their active participation in the economy is only 35% (Department of Census and Statistics, 2012). The lack of Sri Lankan women pursuing entrepreneurship and the shortfall of successful women in this category has directly resulted in low level of contribution to the local economy (Ranasingha, 2010). The history of Sri Lankan handicrafts runs to pre-history and its production is essentially a cottage industry: products are turned out making use of natural raw materials by means of time tested age-old techniques (Sandberg, 2003). The traditional skills have been preserved with its purity, resulting in the continues characteristic identity of Sri Lankan handicraft. Female skilled labour absorption is very high for this industry in each stage of production (Schlosser, 2001). In Sri Lanka, wide variety of handicraft: pottery, wood craving, metal works, brassware, brass casting, lacquer work, batiks, handloom textiles jeweler, lace making, and wooden masks can be found throughout the island in shops, street stalls and government run stores. Although since independence successive governments have taken several policy decisions to enhance this industry, yet, the growth of this industry has not reached expected results. Substantial amount of previous literature have concluded this is due to lack of external support (external factors) and very scan studies have viewed as internal mismanagement (internal factors). Under same business environment, some women entrepreneurs have depicted greater performance and some have still functioning at subsistence level. Thus, it is timely need to be studied that why such variation among same business category under similar business environment. Is it due to miss optimization of external services or is it due to internal resource miss-management? Therefore the objectives of this study in line with this problem as follows.

4. Objectives of the Study:

- Examine the internal and external factors that contribute to the success of women-led small scale handicraft entrepreneurs.
- To discuss the importance of owners entrepreneurial self-efficiency and effective usage of external supportive services on their business performance.

MATERIALS AND METHOD

5.1. Study Area and Sampling Framework:

In Sri Lanka, 11.2% of total SMEs fall under the category of handicraft industry. There are 3,482 small and medium scale female-led handicraft establishments in Sri Lanka. Out of that 22.8% establishment are located in western province. Thus, the sample was selected on the basis of the directory regarding women business owners in western province, prepared by ministry of industries and women affaires, western province, Sri Lanka. Since three districts covered in Western Province, those districts were considered as three clusters in the study. Initially the study identified total number of small and medium scale handicraft establishments in each districts on the basis of number of employees. A firm in which the number of employees is between 5-49, it has identified as a Small Scale Firm (SSF) while a firm in which between 50-99 employees has been categorized as a Medium Scale Firm (MSF). Based on the total number of SMEs in each cluster, the Morgan approach was applied to determine the sample size. The sampling framework is present in table 01.

Table 1: Population and Sample Framework

Clusters	No of Female-led Handicraft Establishments	Sample Size
Colombo	280	57
Gampaha	298	59
Kaluthara	215	42
Total	793	158

5.2 Data Collection Techniques:

The main data collection technique comprised of in-depth interviews with 158 small and medium handicrafts women business owners. The interview was conducted based on pre-determined questions according to the conceptual framework developed. This included both open-ended questions and structures questions. The information collected through in-depth interviews were used to constructed the Owner's Entrepreneurial Self Efficiency Index (OESEI), the external factors based Dynamic Effective Indices (EFBDEI) and Operating Profit Ratio (OPR) which were the main independents and a dependent variables in this study.

5.3 Method of Data Analysis:

To understand the enabling business environment that influencing the performance of respective business and owner's entrepreneurial self-efficiency, the external factors based Dynamic Effective Indices (EFBDEI) and Owner's Self-efficiency Index (OSEI) were used respectively. Both indexes were considered as explanatory variables of business performance. The business performance evaluated based on operating profit ratio in the last five years extracted from the selected firm's financial records.

5.4 Owners Entrepreneurial Self Efficiency Index (OESEI):

In order to measures the entrepreneurial self-efficiency the study included 23 items covering six theoretical dimensions of the construct such as: developing new product and market opportunities, building and innovative environment, initiating investors relationship, defining core purpose and coping with unexpected challengers (Venkatraman & Ramanujam, 1986). Construct were measured with five point likert's-scale ranging from strongly disagree to strongly agree. Overall leader's entrepreneurial self-efficiency index was calculated on the basis of the equal weights given to the eight dimensions. The index value is ranging from 0 to 1.

5.5 External Factors Based Dynamic Effective Index (EFBDEI):

The impact of external factors on business performance measured based on Dynamic Effective Index (DIE) which was mainly focused 35 items (questions) covering seven external factors that were influenced on better performance of business. Those are; access to finance, access to appropriate technology, access to information and markets, business development services, linkage formation, infrastructure and enabling legal and regulatory framework (Kalegama, 2002). That information used to measure the effective usage of external services for business performance.

5.6 Business Performance of Entrepreneurs:

Business performance as a model examines indicators such as profitability and growth in sales earning per share, and so forth (Venkatraman & Ramanujam, 1986). In this study the operating profit ratio in the last five years extracted from the selected firms financial records as to measure the business performance. Operating Profit Ratio = (Operating Profit/Net sales)*100 and Operating Profit = Gross profit – Operating expenses.

5.7 Censored Regression Models (Tobit Model):

In order to measure the impact of effective usage of external factors and entrepreneurial self-efficiency on business performance the study applied censored Regression model to measure the relevant parameters. Since the estimated operating profit ratio (OPR) of each FOs (the dependent variable) were ranging between some upper and lower bound, econometrically recommended ideal model is the censored TOBIT model for parameter estimation (Tobin, 1958).

5.8 Empirical Censored Regression Model:

The Tobit function is given by, $OPR_i = \alpha_o + \sum_{j=1}^2 \alpha_k W_{ik} + \varepsilon_i$ Where, OPR is the operating profit ratio of each FO, and W_{ik} are two explanatory variables such as: External factor based dynamic Effective Index (DEI) and Leader's Entrepreneurial Self efficiency Index (LESEI).

RESULTS AND DISCUSSION

Means and standard deviations of all dimensions under External Factors Based Dynamic Effective Index (EFBDEI) and Owner's Entrepreneurial Self-efficiency Index (OESEI) are represented in table 2. Since the measurement of the dimensions used that five point likert's scale which represents strongly agree 5 scores and strongly disagree 1 score (or very poor to excelent) , low average mean values represent low level of existence of dimension and high values for high level of existence. Thus, as typical, based on average score, results were interpreted as low when the mean score is less than 2.5. Further. The score is between 2.6 and 3.49 and greater than 3.5 were interpreted as average and high level of existence, respectively.

Both external factors base Group Dynamic Index and entrepreneur's self- efficiency indices were constructed by weighting observed dimensions for each entrepreneur and range the scores as they received. The results are presented in table 3. Both indices were ranging from 0 to 100 and higher the score means greater the performance and vice versa. More than 72 percent entrepreneurs were yield more than 50 percent of EFBDEI index and more than 64 percent entrepreneurs have recorded more than 50 percent of OESE index. Thus majority of entrepreneurs were presented in average and above position with respect to the dimensions under external factors based dynamic effectiveness and entrepreneurs' self-efficiency which have previously discussed.

Table 2: Descriptive Statistics for Selected Dimensions.

Dimensions	Mean	Std. Deviation	Max.	Mini.
EFBDEI			5	1
Access to finance	2.9	0.521	5	1
Access to appropriate technology	2.8	0.503	5	1
Access to information and market	2.7	0.411	5	1
Business development services	3.1	0.444	5	1
Linkage information	3.1	0.583	5	1
Infrastructure facilities	3.4	0.439	5	1
Enabling legal and regulatory framework	2.6	0.411	5	1
Access to raw materials	2.8	0.303	5	1
ESEI				
Developing new venture and Market Opportunities	3.1	0.621	5	1
Building and Innovative Environment	3.2	0.732	5	1
Initiating Investors Relationship	3.3	0.831	5	1
Defining Core Purpose	3.1	0.698	5	1
Coping with Unexpected Challenges	2.7	0.418	5	1

Source: Compiled by Author based of Field Survey, 2013.

Table 3: Range of GDEI and LSEI Indices (N =51)

Range	EFBDEI		LSEI	
	No	%	No	%
21 – 30	10	6.3	17	10.7
31 – 40	17	10.7	18	11.4
41 – 50	16	10.2	21	13.4
51 – 60	33	20.9	23	14.6
61 – 70	21	13.3	14	8.9
71 – 80	23	14.5	29	18.3
81 – 90	24	15.2	20	12.6
91 -100	14	8.9	16	10.1
Total	158	100.0	158	100.0

Source: Compiled by Author based of Field Survey, 2013.

The range of estimated Operating Profit Ratios (OPR) is presented in table 04. The estimated OPRs were ranging from 1.1 to 12.9 among selected female-led entrepreneurs, showing their business performance. Out of total sample, 14 entrepreneurs (8.8 percent of the sample) have recorded less than one operational profit ratio. More than 50 percent entrepreneurs operating profit ratio is greater than 5.

Table 4: Range of Operating Profit Ratios (N = 158)

Range of OPR	No	%
0 – 2.5	23	14.6
2.6 – 5.0	51	32.3
5.1 – 7.5	38	24.0
7.6 – 10	32	20.2
> 10	14	8.9
Total	158	100.0

Source: Compiled by Author based of Field Survey, 2013.

Table 5: Estimated Coefficient under Censored Regression

Variable	Parameter	Coefficient	T ratio	Significance
Constant	β_0	-0.357	-6.786	0.000
External factors based Dynamic Effective Index (EFBDEI)	β_2	0.378	2.510	0.0121
Owners Entrepreneurial Self-efficiency Index (OESEI)	β_2	0.989	4.367	0.000
Log Likelihood Function - Ending		188.54		
Log Likelihood Function - Beginning		-2543.80		
Sigma	σ	0.892	14.897	0.000
Pseudo R ²		0.94		

Source: Compiled by Author based of Field Survey, 2013.

Assessing Overall Model Fit:

The pseudo R² measures in Tobit regression model as in table 05. The estimated Pseudo R² is greater than 0.9, indicating that the Tobit regression models accounts for at least 90% variation of dependent variable. Thus, study has taken correct explanatory variables for determined the operating profit ratio or business performance of community organization. Sigma is analogous to the square root of the residual variance in OLS regression. It is important to note that once it compares with the standard deviation of dependent variable it reported substantial reduction and that reduction has significant at 1 present significant level indicated that all four model were got fit for the dataset.

Relation and Magnitude of the Model Variables:

As the study hypothesized both external factors based dynamic effective index (EFBDEI) and owner's entrepreneurial self-efficiency index (OESEI) have highly significant positive impact on female-led small and medium scale handicraft industry's business performance during the last five years. However, relatively, the owners' entrepreneurial self-efficiency index has shown greater magnitude than the external factors based dynamic effective index. It is not rather surprising results, because as many professionals depicted, still leaders are the dominant frontier on decision marking in the small and medium scale entrepreneurship.

Conclusions and Policy Implications:

Although state sector organizations and various foreign funded projects have attempted to promote female – led handicraft related production activities during last two decades, the results were far away from the expected level. Out of total sample, 14 entrepreneurs (8.8 percent) have recorded less than one Operational Profit Ratio per year. Further, the study found that such low level OPR has gained due to; owners' bad financial management, Marketing problems, poor accessibility for raw materials, irresponsiveness, and poor extension services. Some business activities have failed due to their little experiences and understanding on business the entrepreneur had to identify some viable economies actives that can be practiced by organization in trial and error method. Majority of female-led small and medium scale handicraft industries have commenced their business activities without observed the market possibilities or market feasibilities. A few activities were failed due to some external factors which are beyond owner's control. Most of the authorize organizations which were originally with them, have dropped their hand due to changing political interest. Besides, some foreign funded project, which were initially assisted and promoted business orientation activities have reallest their attention before the organization reached at least maturity level. Furthermore, due to unexpected price fluctuation of their product as well as inputs, numbers of activities have yielded adverse impact to the OPR. Poor risk management practices and natural disasters were also having influenced on failure activities.

Beside, several theoretical implications are associated with the findings of the present study. As the study hypothesized both existing business environment based dynamic effective index (EDEI) and owner's entrepreneurial self-efficiency index have significant positive impact on business performance during the last five years. However, relatively, the leaders' entrepreneurial index has shown greater magnitude than the external

factors based dynamic effective index. It is not rather surprising results, because as many professionals depicted, still owns are the dominant frontier on decision marking in the small and medium level entrepreneurs. Owner's behaviors and attitudes were relatively much influenced on success or failure of small and medium scale business performance rather than effective usage of external services of factors. Thus, policy makers need to be drawn their attention not only the improvement of infrastructure facilities but also the importance of owners entrepreneurial self-efficiency improvement of small and medium scale female-led business owners for better development in respective field.

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